

## AMENDMENTS TO THE SPECIFICATION

On page 1, after line 1, insert the following replacement paragraph:

### Cross-Reference to Related Applications

This application is the national phase application of International Application No. PCT/IB99/02053 filed ~~July 30, 2001~~ December 24, 1999, entitled "Blood Separation System Particularly for Concentrating Hematopoietic Stem Cells." Priority is claimed to the PCT application filing date under 35 U.S.C. § 365.

On page 4, under the heading DISCLOSURE OF THE INVENTION, please replace the first paragraph with the following paragraph:

According to the invention, such system is arranged to operate in a separation mode as defined in claim 1 and in a non-separation transfer mode, which provides greater possibilities for use of the system including new applications which were heretofore not contemplated, such as separation of hematopoietic stem cells and in general laboratory processing. According to the invention, the system is arranged to operate such that:

On page 14, starting at line 14, please replace the complete paragraph with the following new paragraph:

The cabinet holding the instrumentation is shown in Fig. 8. It contains the cover 94 for holding the rotary seal 12 of the processing chamber 20. The cover 94 is made of two semi-circular disks that can rotate on hinge 89. An optical line sensor 83 allows the sensing of colors in the effluent tubing 51. It holds two LED-Photosensor channels, of different wavelength like red and green, and is capable of detecting the first cells coming out of the chamber 20. It can equally detect the empty state of the effluent line tubing when liquid is introduced in the chamber. The pressure port measurement 86 93 receives the bacterial filter 49 located on the disposable set. This allows the monitoring of the pressure in the processing chamber 20. Upper shafts 84-87 of the stopcock driver motors 100-103 (Fig. 5) are located behind the line sensor 83. An inclined module 90 receives the display 82 for user information and a keyboard 81 for controlling the instrumentation. A window 91 is located on the front panel 92 giving visibility to the chamber piston movement.